

REMARKS

As a preliminary matter, Applicants appreciate the acknowledgment of allowable subject matter contained in claims 6-10.

Claim 17 stands rejected under 35 U.S.C. 112 as being indefinite. In response, Applicants amended the claim to clarify that the upper shield layer is opposed to the domain control layers at “a second interface”, and request withdrawal of the rejection on this basis.

Claim 17 stands rejected under 35 U.S.C. 102(b) as being anticipated by Ishi (U.S. Patent No. 5,800,935). In response, Applicants amended claim 17 to clarify that the groove sinks into the upper shield layer from the first and second interfaces, and respectfully traverse.

The Examiner cites Ishi, and considers the raising of the lower side of the shield layer 2b as disclosing the groove recited in claim 17 of the present invention. Accordingly, Applicants amended claim 17 to further clarify the structure of the groove. More specifically, the groove is now defined as sinking into the upper shield layer from the first and second interfaces. This is distinguishable over the structure of Ishi, which sinks into the gap layer 3b. For this reason, withdrawal of the §102 rejection of claim 17 is respectfully requested.

Claims 1-3 stand rejected under 35 U.S.C. 102(b) as being anticipated by Gill (U.S. Patent No. 5, 872,689). In response, Applicants amended claim 1 to recite a pair of lead layers spreading over surfaces of the domain control layers, and respectfully traverse.

As shown in FIG. 5 of the present Application, a pair of lead layers 43 are formed on the domain control stripe layers 42. Also, the magnetoresistive transistor of the present invention has a sense current supplied to the magnetoresistive film through the lead layers so as to conduct the sense current in a direction parallel with the air bearing surface.

In contrast, Gill discloses an orthogonal magnetoresistive read head in which sense current is conducted through the magnetoresistive stripe perpendicular to the air bearing surface. First and second leads L1 and L2 disposed at 100 and 110, as shown in FIG. 4, are aligned in a direction perpendicular to the air bearing surface. FIG. 3 further illustrates each of the first and second leads L1 and L2 being formed to overlap both surfaces of the thin film biasing layers 120 and 130, unlike the present invention which defines the lead layers as spreading ^{broad} over surfaces of the domain control layers. For this reason, withdrawal of the §102 rejection of claim 1, as amended, and its associated dependent claims 2-3 is respectfully requested.


Claims 4-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gill. Since claims 4-5 ultimately depend upon claim 1, they necessarily include all of the features of their associated independent claim plus other additional features. Thus, Applicants submit that the §103 rejection of claims 4-5 has also been overcome for the same reasons mentioned above to overcome the rejection of independent claim 1. Applicants respectfully request that the §103 rejection of claims 4-5 also be withdrawn.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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